

ABSTRACT OF THE DISCLOSURE

The present invention relates to a method for preparation of a modified host cell which comprises the steps of (a) transfecting a host cell with at least one compound of interest to which a label is covalently coupled and (b) isolating the transfected host cell, wherein the label provides to the host cell a non-inheritable trait. Modified host cells according to the invention can be directly separated from the non-modified host cell. To this end use is made of labels, which can be monitored at the modified cells (such as fluorescent labels) and which enable separation of the modified and non-modified host cells by suitable means. In case of fluorescent labels use can be made of a Fluorescent Activated Cell Sorter. Suitable compounds of interest according to this invention are compounds, which enable to change permanently or transiently a metabolic property of the host cell. Examples of compounds are polynucleotides, proteins or metabolites. The host cells modified according to the present invention can be used for the production of proteins, metabolites and cell biomass.